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EXAMINER
COLAN, GIOVANNA B

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NOTIFICATION DATE	DELIVERY MODE
11/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 – 14, 16 – 29, 32, and 34* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 – 14, 16 – 29, 32, and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This action is issued in response to the Amendment filed on 08/01/2008.

2.   Claims 1, 21, 32, and 34 were amended. Claims 15, 30 – 31, and 33 were

canceled. No claims were added.

3.   This action is made Final.

4.   Claims 1 –14, 16 – 29, 32, and 34 are pending in this application.

Response to Arguments

5.   Applicant's arguments with respect to amended claims 1, 21, 32, and 34 have

been considered but are moot in view of the new ground(s) of rejection.

Specification

6.   The specification is objected to as failing to provide proper antecedent basis for

the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

of the following is required: The term "computer-readable medium" recited in claims 32

and 34 lacks of antecedent basis in the specification.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

8.   Claims 32, and 34 – 39 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Claims 32, and 34 recite a "computer-readable medium storing a program that,

when executed by a computer, causes the computer to generate …". However,

applicant has failed to provide antecedent basis for the claim terminology "computer-

readable medium". Also, the examiner makes note that; "when executed by a

computer..." does not necessarily mean including/comprising/consisting of a computer.

The claimed invention is addressed to an "computer-readable medium" that can

be interpreted as referring to lines of programming within a computer-readable medium,

rather than referring to the computer-readable medium as a physical object. The

claimed invention is also addressed to "user control", and "a graphical user interface"

that is not a computer-readable medium/hardware/apparatus but is software.

Accordingly, the claim becomes nothing more than sets of software instructions which

are "software per se".

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10.   Claims 1 – 7, 10 – 14, 16 – 18 , 20 – 29, 32, and 34 – 39 are rejected under 35

U.S.C. 102(e) as being anticipated by Chau et al. (Chau hereinafter) (NPL: "Comparison

of Two Approaches to Building a Vertical Search Tool: Case Study in the

Nanotechnology Domain"; Michael Chau, Hsinchun Chen, Jialun Qin, Yilu Zhou, Yi Qin,

Wai-Ki Sung, Daniel McDonald; JCDL '02, July 13 – 17, 2002, Portland, Oregon, USA;

Copyright 2002 ACM).

Regarding Claims 1, 21, and 34, Chau discloses an information retrieval system

in which a set of distinct information items map to respective nodes in an array of nodes

by mutual similarity of the information items, so that similar information items map to

nodes at similar positions, wherein the self-organizing map is trained upon reduced

dimension characterizations of the information items, the system comprising:

a user control for defining a search criterion for selecting information items using

standard keyword search technique (Page 139, section 3, "a server-side, vertical engine

approach", "…First a user inputted the search term(s) through the Web

interface…'nanomedicine' was used…", Chau);

a detector for detecting those positions within the self-organizing map

corresponding to the information items selected by the standard keyword search

technique (Page 139, section 3, "the user could request the system to extract the key

concepts from these pages using Arizona Noun Phraser and categorize the Web pages

into 2-D topic map using SOM", and Page 140, section 3.4: "Post-retrieval Analysis", 3rd

paragraph, "SOM employs an artificial neural network algorithm to cluster the Web

pages collected into different regions on a 2-D map automatically. In SOM, each

document is represented as an input vector of keywords and a two-dimensional grid of output nodes are created", Chau);

a graphical user interface for displaying display points representing those positions within the self-organizing map corresponding to the selected information items (Page 139, 1st paragraph under section 3.1, and Page 140, 3rd paragraph under section 3.3, Chau); and

a processor, responsive to the selected information items defined by the search criterion, for providing one or more representations representative of the information content of the selected information items (Page 140, 3rd paragraph under section 3.3, Chau);

wherein the information items include at least image data (Page 140, 3rd paragraph under section 3.3, Chau); and

wherein the processor is responsive to the selected information items and displays one or more image obtained from the image data included in the selected information items defined by the search criterion so as to represent the content of the selected information items (Page 140, 3rd paragraph under section 3.3, and Page 138, Fig. 2, item 5. "Search results are categorized into subtopics...", and Fig.4, item 4. "Web pages categorized as 2-Dtopic map", Chau).

Regarding Claim 2, Chau discloses a system, wherein the graphical user interface is operable to display a two-dimensional display array of the said display

points (Page 139, 1st paragraph under section 3.1, and Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 3, Chau discloses a system, in which a dither component is applied to the mapping between information items and nodes in the self-organizing map so that information items that share a node tend to map to closely spaced, but different positions in the displayed array (Page 139, section 3, "the user could request the system to extract the key concepts from these pages using Arizona Noun Phraser and categorize the Web pages into 2-D topic map using SOM", and Page 140, section 3.4: "Post-retrieval Analysis", 3rd paragraph, "SOM employs an artificial neural network algorithm to cluster the Web pages collected into different regions on a 2-D map automatically. In SOM, each document is represented as an input vector of keywords and a two-dimensional grid of output nodes are created" and further "More important concepts occupy larger regions, and similar concepts are grouped in a neighborhood", Chau).

Regarding Claim 4, Chau discloses a system, in which the information items are mapped to nodes in the self-organizing map on the basis of a feature vector derived from each information item (Page 139, section 3, "the user could request the system to extract the key concepts from these pages using Arizona Noun Phraser and categorize the Web pages into 2-D topic map using SOM", and Page 140, section 3.4: "Post-retrieval Analysis", 3rd paragraph, "SOM employs an artificial neural network algorithm to

cluster the Web pages collected into different regions on a 2-D map automatically. In

SOM, each document is represented as an input vector of keywords and a two-

dimensional grid of output nodes are created", Chau).

Regarding Claim 5, Chau discloses a system, in which the feature vector for an

information item represents a set of frequencies of occurrence, within that information

item, of each of a group of information features (Page 140, 2nd and 3rd paragraph under

section 3.4 Post-retrieval Analysis, Chau).

Regarding Claim 6, Chau discloses a system, in which the information items

comprise textual information, the feature vector for an information item represents a set

of frequencies of occurrence, within that information item, of each of a group of words

(Page 140, 2nd and 3rd paragraph under section 3.4 Post-retrieval Analysis, Chau).

Regarding Claim 7, Chau discloses a system, in which the information items

comprise textual information, the nodes being mapped by mutual similarity of at least a

part of the textual information (Page 139, section 3, "the user could request the system

to extract the key concepts from these pages using Arizona Noun Phraser and

categorize the Web pages into 2-D topic map using SOM", and Page 140, section 3.4:

"Post-retrieval Analysis", 3rd paragraph, "SOM employs an artificial neural network

algorithm to cluster the Web pages collected into different regions on a 2-D map

automatically. In SOM, each document is represented as an input vector of keywords

and a two-dimensional grid of output nodes are created" and further "More important

concepts occupy larger regions, and similar concepts are grouped in a neighborhood",

Chau).

Regarding Claim 10, Chau discloses a system, wherein the said user control

comprises:

search means for carrying out a search of the information items (Page 139,

section 3, "a server-side, vertical engine approach", "...First a user inputted the search

term(s) through the Web interface...'nanomedicine' was used...", Chau);

the search means and the graphical user interface being arranged to co-operate

so that only those display points corresponding to information items selected by the

search are displayed on the user display (Page 139, 1st paragraph under section 3.1,

and Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 11, Chau discloses a system, wherein the said processor is

operable to detect clusters of similar information items and to provide representations

representative of the information content of the respective clusters (Page 140, 3rd

paragraph under section 3.3, and Page 138, Fig. 2, item 5. "Search results are

categorized into subtopics...", and Fig.4, item 4. "Web pages categorized as 2-Dtopic

map", Chau).

Regarding Claim 12, Chau discloses a system, wherein the processor is

operable to provide the or each said representation on the user display as a label of the

display points corresponding to the information items represented thereby (Page 140,

3rd paragraph under section 3.3, and Page 138, Fig. 2, item 5. "Search results are

categorized into subtopics…", and Fig.4, item 4. "Web pages categorized as 2-Dtopic

map", Chau)

Regarding Claim 13, Chau discloses a system, wherein the label is a word or set

of words (Page 140, 3rd paragraph under section 3.3, and Page 138, Fig. 2, item 5.

"Search results are categorized into subtopics…", and Fig.4, item 4. "Web pages

categorized as 2-Dtopic map", Chau).

Regarding Claim 14, Chau discloses a system, wherein the processor

determines, in respect of a set of information items with which a label is to be

associated, the most frequently used word or set of words in the information items

corresponding to the selected information items and applies that word or that set of

words as the label (Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 16, Chau discloses a system, wherein the said processor is

operable to select, from the set of image items, an image item which is representative of

the set of image items as a whole according to a predetermined selection criterion

(Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 17, Chau discloses a system, wherein the processor is

operable to select the image item a property of which is nearest to the average of the

same property of the said set of image items (Page 140, 3rd paragraph under section

3.3, Chau).

Regarding Claim 18, Chau discloses a system, wherein the said one or more

representative image items are applied as labels to the display points corresponding to

the information items represented thereby (Page 140, 3rd paragraph under section 3.3,

and Page 138, Fig. 2, item 5. "Search results are categorized into subtopics...", and

Fig.4, item 4. "Web pages categorized as 2-Dtopic map", Chau).

Regarding Claim 20, Chau discloses a Video acquisition and/or processing

apparatus comprising a system (Page 143, 2nd paragraph under section 5.2, Chau).

Regarding Claim 22, Chau discloses a method, wherein the displaying step

displays a two-dimensional display array of the said display points (Page 139, 1st

paragraph under section 3.1, and Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 23, Chau discloses a method, comprising:

carrying out a search of the information items (Page 139, section 3, "a server-side, vertical engine approach", "…First a user inputted the search term(s) through the Web interface…'nanomedicine' was used…", Chau);

displaying on the display that only those display points corresponding to information items selected by the search are displayed on the user display (Page 139, 1st paragraph under section 3.1, and Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 24, Chau discloses a method, comprising detecting clusters of similar information items and providing representations representative of the information content of the respective clusters (Page 139, section 3, "the user could request the system to extract the key concepts from these pages using Arizona Noun Phraser and categorize the Web pages into 2-D topic map using SOM", and Page 140, section 3.4: "Post-retrieval Analysis", 3rd paragraph, "SOM employs an artificial neural network algorithm to cluster the Web pages collected into different regions on a 2-D map automatically. In SOM, each document is represented as an input vector of keywords and a two-dimensional grid of output nodes are created" and further "More important concepts occupy larger regions, and similar concepts are grouped in a neighborhood", Chau).

Regarding Claim 25, Chau discloses a method, comprising providing the or each said representation on the user display as a label of the display points corresponding to the information items represented thereby (Page 140, 3rd paragraph under section 3.3,

and Page 138, Fig. 2, item 5. "Search results are categorized into subtopics...", and

Fig.4, item 4. "Web pages categorized as 2-Dtopic map", Chau).

Regarding Claim 26, Chau discloses a method, wherein the label is a word or set

of words (Page 140, 3rd paragraph under section 3.3, and Page 138, Fig. 2, item 5.

"Search results are categorized into subtopics...", and Fig.4, item 4. "Web pages

categorized as 2-Dtopic map", Chau).

Regarding Claim 27, Chau discloses a method, in which the information items

are at least associated with image items, and

comprising providing one or more image items representative of the information

content of the selected information items defined by the search criterion (Page 140, 3rd

paragraph under section 3.3, Chau).

Regarding Claim 28, Chau discloses a method, comprising selecting, from the

set of image items, an image item which is representative of the set of image items as a

whole according to a predetermined selection criterion (Page 140, 3rd paragraph under

section 3.3, Chau).

Regarding Claim 29, Chau discloses a method, comprising selecting the image

item a property of which is nearest to the average of the same property of the said set of

image items (Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 32, Chau discloses a computer-readable medium storing a

program which, when executed by a computer, causes the computer to perform the

method recited in claim 21 (Page 143, 2nd paragraph under section 5.2, Chau).

Regarding Claim 35, Chau discloses a user interface, wherein the said user

control comprises:

search means for carrying out a search of the information items (Page 139,

section 3, "a server-side, vertical engine approach", "…First a user inputted the search

term(s) through the Web interface…'nanomedicine' was used…", Chau);

the search means and the graphical user interface being arranged to co-operate

so that only those display points corresponding to information items selected by the

search are displayed on the user display (Page 139, 1st paragraph under section 3.1,

and Page 140, 3rd paragraph under section 3.3, Chau).

Regarding Claim 36, Chau discloses an interface, wherein the graphical user

interface is arranged to display representations representative of the information content

of respective-clusters of similar information items (Page 139, section 3, "the user could

request the system to extract the key concepts from these pages using Arizona Noun

Phraser and categorize the Web pages into 2-D topic map using SOM", and Page 140,

section 3.4: "Post-retrieval Analysis", 3rd paragraph, "SOM employs an artificial neural

network algorithm to cluster the Web pages collected into different regions on a 2-D

map automatically. In SOM, each document is represented as an input vector of keywords and a two-dimensional grid of output nodes are created" and further "More important concepts occupy larger regions, and similar concepts are grouped in a neighborhood", Chau).

Regarding Claim 37, Chau discloses an interface, wherein graphical user interface is operable to provide the or each said representation as a label of the display points corresponding to the information items represented thereby (Page 140, 3rd paragraph under section 3.3, and Page 138, Fig. 2, item 5. "Search results are categorized into subtopics…", and Fig.4, item 4. "Web pages categorized as 2-Dtopic map", Chau).

Regarding Claim 38, Chau discloses an interface, wherein the label is a word or set of words (Page 140, 3rd paragraph under section 3.3, and Page 138, Fig. 2, item 5. "Search results are categorized into subtopics…", and Fig.4, item 4. "Web pages categorized as 2-Dtopic map", Chau).

Regarding Claim 39, Chau discloses an interface, wherein the said representations are image items which are applied as labels to the display points corresponding to the information items represented thereby (Page 140, 3rd paragraph under section 3.3, and Page 138, Fig. 2, item 5. "Search results are categorized into subtopics…", and Fig.4, item 4. "Web pages categorized as 2-Dtopic map", Chau).

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

12.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

13.   Claims 8 – 9, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chau et al. (Chau hereinafter) (NPL: "Comparison of Two Approaches to Building a

Vertical Search Tool: Case Study in the Nanotechnology Domain"; Michael Chau,

Hsinchun Chen, Jialun Qin, Yilu Zhou, Yi Qin, Wai-Ki Sung, Daniel McDonald; JCDL

'02, July 13 – 17, 2002, Portland, Oregon, USA; Copyright 2002 ACM) in view of Herz et

al. (Herz hereinafter) (US Patent No. 5,754,938, issued: May 19, 1998).

Regarding Claim 8, Chau discloses all the limitations as discussed above

including: the information items are pre-processed for mapping. However, Chau does

not expressly disclose a threshold frequency. On the other hand, Herz discloses:

information items are pre-processed for mapping by excluding words occurring with

more than a threshold frequency amongst the set of information items (Col. 40, lines 14

– 16, Herz). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the Herz' teachings to the system of Chau. Skilled

artisan would have been motivated to do so, as suggested by Herz (Col. 7 and 8, lines 9

– 11 and 65 – 68 and 1 – 5, Herz), to measure similarities of profiles describing target

objects of user's interests; and to further predict the information consumption patterns of

a user allowing pre-caching of data at locations on the data communication network and

at times that minimized the traffic flow in the communication network to thereby

efficiently provide the desired information to the user and/or conserve valuable storage

space by only storing those target object (or segments thereof) which are relevant to the

user's interest.

Regarding Claim 9, the combination of Chau in view of Herz (Chau/Herz

hereinafter) discloses a system, in which the information items are pre-processed for

mapping by excluding words occurring with less than a threshold frequency amongst

the set of information items (Col. 40, lines 14 – 16, Herz).

Regarding Claim 19, Chau/Herz discloses a portable data processing device comprising a system according to claim 1 (Col. 30, lines 35 – 37, Herz).

Conclusion

14.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
November 3, 2008

/John Breene/
Supervisory Patent Examiner, Art Unit 2162